GrACE NEWS

THE NEWSLETTER OF THE GREENVILLE ATARI COMPUTER ENTHUSIASTS

VOLUME: 5 NUMBER: 10 OCTOBER 20, 1987

MEETING: October 20th
DOORS OPEN AT 7:00pm
GRIER MEMORIAL ARP CHURCH

I want to thank all those who contributed to the last meeting. There were some excellent demonstrations of **PC DITTO** and **BALANCE OF POWER.** This meeting Mike Talbert is going to discuss how he uses his Atari 130XE to 'talk' to the mainframe computer at his place of work.

Also the infamous Rhett Bryson will be discussing how he uses his computer to control electrical switches, etc. with the X-10 Powerhouse. The X-10 Powerhouse was reviewed by Ron Moore in a previous issue of this newsletter.

John Disher will be discussing the elected offices of the club and establishing a nominating committee.So if you want to help here's your chance.

Please join us on the 20th of October at the Grier Memorial ARP Church Fellowship Hall for our general meeting.

Don Shockley
Vice-president

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Over the years this club has taught me many things about computers and about people. It seems that learning about the computers, their uses, repair, and modification were the easy part. All I had to do was ask and the club members were there trying to help.

Now it's time to ask for people to help with running the club, and 99.9% of the club will not do **anything.** I ask you to reconsider if you fall into this catagory.

I ask you to think 'was there ever a time when I did not have to commit myself to move ahead?' I would be suprised if any of could answer yes to this question.

The club needs people to organize and help with its function for next year - I ask for your commitment.

As I said above people are the toughest to learn about but I can always hope.

Ed Culbertson
Editor

Gr.A.C.E.

The Greenville Atari Computer Enthusiasts is an independent, non-profit organization and user's group with no affiliation with Atari Corporation, or any other organization. Membership dues (family) is $20.00 per year. Membership includes access to the club's public domain program library, subscription to the Gr.A.C.E. newsletter, and access to the club's electronic bulletin board, Amazin' Grace (803-268-8138).

The GrACE newsletter is published monthly by the Greenville Atari Computer Enthusiasts, 107 Saratoga Dr., Greer, SC 29651.

The GrACE newsletter will accept any articles by members on any topic found pertinent to the club. Articles will be accepted in any form, although word processing files uploaded to the club's BBS (268-8138) with a message left to Ed Culbertson or Mike Jett, Editors, are preferred.

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MEMBERSHIP RENEWAL

Take a moment and look at your mailing label on this issue of the 'GrACE NEWS'. Check the right-hand side of the label for the word 'DUES'. Just after this word are the month/year when your membership expires. Try to renew at least one month early. This helps us with the accounting and record keeping and also avoids your missing any issues of the newsletter.

There are two easy ways to renew:

1. At the monthly meeting talk to Doug Slagh the club treasurer and present him with $20 (in cash or check).

2. Send your name and renewal ($20) to:

Doug Slagh
104 Burgoyne Court
Greer, SC 29651

RAMblings

THE GOOD NEWS

The XEP80 and the SX212 modem are being shipped to dealers. The XEP80 allows the 8-bit machines to have an 80 column display when used with software that can take advantage of its capability. It also has a parallel printer interface. The SX212 is a Hayes-compatible 1200 baud modem that can be used with all Atari computers. However, until the software is written, it can only be used with an 850 interface or equivalent on the 8-bit machines.

The XE Game System (sigh) is being sold locally for about $150. Note: I'm not sure this is good news.

Analog magazine has given permission for their programs to appear on Genie. Now if Antic would only follow suit.

THE BAD NEWS

Atari has announced a 10% across the board price increase for ST hardware. I wonder if we will see a new motto to reflect this? How does this sound, "You Want Power, Send More Money".

Maybe Atari needs the money to build a faster ship to bring the Mega ST's from Taiwan.

THE OLD NEWS or SETTING THE SCENE

Last month's CHIPPIE Award went to Analog magazine as "The Best Magazine in a Highly Erratic Series" for combining their July and August issues. Note: I use the word "combining" very loosely.

THE NEW NEWS or THE SCENE

This month's CHIPPIE award is sort of a repeat. It goes to Antic Magazine for "Best Effort In Trying to Outdo Other Highly Erratic Magazines". The story goes like this. Antic sent me a "this is your last chance to renew if you don't want to miss an issue" notice. I sent the card in but somehow still managed to miss an issue. I got the September issue as the last issue on my old subscription and the next one that I got was dated November. The mailing label even indicated that I should have gotten the October issue. But true to their word, just last week, I got the October issue - three weeks after I got the November issue. I can't be sure but maybe they read my column last month, looked in their records to make sure that they were treating me okay, found their mistake and tried to rectify it. Nahhhhhh.

Ken Richardson

"HIT ANY KEY TO CONTINUE"

Library News...
This month's Disk-of-the-Month will contain the following programs:

1. DISKMEND.BAS - A disk editor from Analog #56. This program will allow you to make repairs (undelete files, close files, trace sector chains, change bytes, modify links, etc.). It also will dump to the printer, and will work on single, enhanced, and double-density drives. Read mag. for details.

2. POLARPLT.BAS - Also from Analog #56. A graphics program that lets you input formulas, ex: R=3*SIN(3*D), and then the program will plot them out on the screen, with an option for a screen dump. Read mag. for details.

3. STRLINER.OBJ - From Analog #56. A program that will "streamline" a lot of your binary files to make them shorter and to help them load faster. Some machine language programmers use assemblers that save files in many segments instead of one large segment. This takes up extra memory and slows down loading and execution. This program will take such files and make one large file out of it.

4. WRENCH.BAS - A homeowner's nightmare. This BASIC game from Analog #56 requires you to stop the leaks in the plumbing before the basement floods. Details are in the magazine.

5. CANADA.BAS - An educational game contributed by Ken Richardson. This game plays similar to "States and Capitals". It will help you learn names of provinces, capitals, rivers, etc. for Canada. Now if we could just get versions for England, France, Germany...

6. BUMPER.CTB - A bumper-pool game written in compiled Turbo-BASIC. Make sure you use RUNTIME.COM from the Turbo disk to play this one.

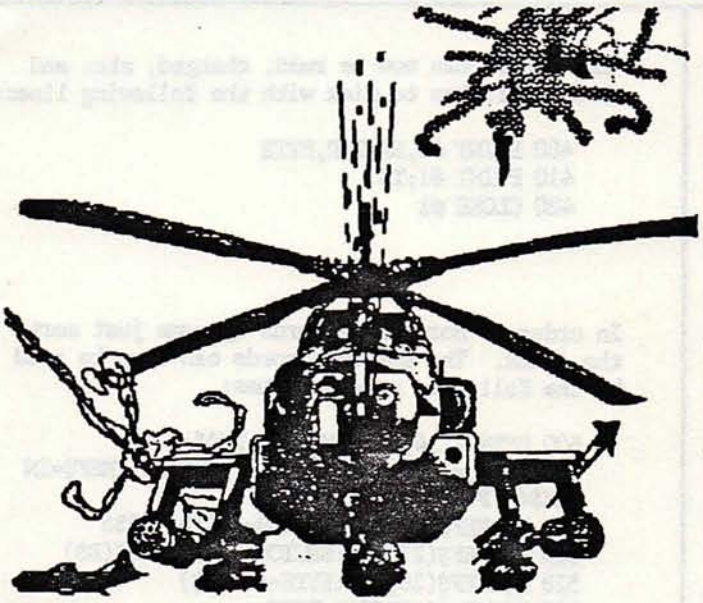
7. DCOPYSP.ARC - A utility for SpartaDOS owners. Similar to DCOPY for the ST, allowing copying, viewing contents of .ARC files, etc. This will not work with other DOSes, and remember that it must be un-ARCed before using.

8. FONTS.ARC - A collection of 14 different fonts for use in programs like Print Tool, Megafont+, and other programs that use different fonts.

9. VOCAB.BAS - A nice educational game which kids will have a good time playing. Allows you to input words and definitions. Tests can be saved to disk, printed, or taken on the screen. The test displays a word and five definitions. You have to match the two for a correct answer. Once these have been done, a new set of words/definitions are displayed. Total score is displayed at the end of the quiz. Use cursor keys or joystick. Very colorful and it even has sound. A must!

10. ARCX12.COM - This is the extractor program needed for the .ARCed files on this disk or any other 8-bit .ARCed files. This is the same program as on an earlier DOM, just put here for new members or members who don't have it already.

George H. Nelson,
8-Bit Librarian.



FLYING HIGH WITH INFILTRATOR

by Walter Williams

Infiltrator is the newest release from Mindscape Software. Last year, Infiltrator was one of the biggest hits for the C-64, Apple, and IBM lines. Now, it is out for the 8-bit Atari, and I, for one am glad.

Infiltrator is a simulation of a commando raid into enemy territory. You play Johnny "Jimbo-Baby" McGibbets, who, among other things, is both a rock star and surgeon, as well as ace helicopter pilot. And Jimbo-Baby doesn't zip around in any old helicopter, no sir. He has the most advanced helicopter in the world.

The objective of the game is to penetrate into enemy territory and complete one of three mission objectives. Little things like find the scientist who has been kidnapped and is being held in a very, very secure compound. The first phase is the helicopter flight simulation. It isn't the most realistic simulator, but it does keep you busy. After taking off from your home base you must determine the direction to the enemy base, then fly there, destroying all enemy aircraft before they destroy you. You can choose between guns or missles when on the offense and on defense you have turbo-boost, chaff and flares.

If you are successful in getting through the enemy airspace, you must then safely land the helicopter, no easy task. After you land, you have twenty minutes to accomplish your mission. A small arsenal helps you out against lots of nasty guards. You then have to get out, get back to your helicopter, and then fight your way back to the home base. No big deal, right?

This is a very playable game that presents quite a challenge to the gamer. The graphics are much brighter than those on the other machines, though very similar. This game appears to have been programmed from the ground up, not a lame attempt at porting from the Commodore. If you like graphic adventure type games then this game is for you. It takes a little time to get into the game, but is not very difficult to learn.

Mindscape has recently released another good game for the 8-bits, Trail Blazer, and has another game scheduled, Into The Eagles Nest. Support Mindscape and buy their products.••

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INDEXING ON THE 8-BIT ATARI

A Tutorial on the NOTE and POINT Commands

By John Mackie

The Atari 800XL is a very fine computer but its limited memory precludes holding a large database in RAM. A large database can be accessed by the 800XL, however, if the records are indexed and only the index is stored in RAM. This article will illustrate how this can be done.

Atari BASIC has two commands, NOTE and POINT, which can be used to create and utilize an index. The NOTE command records the disk sector and byte address of the record that will be read or written next. Correspondingly, the POINT command directs the drive to a specific sector and byte address on the disk. If the starting sector and byte address of each record in the database is NOTEd and this information is included in an array, the array can be searched for a particular record and the disk drive commanded to POINT to the sector and byte address of the chosen record.

For purposes of this article let us assume that we already have an address database containing 600 records, each record (T$) of which is set up as follows:

Name:	T$(1-25)
Address:	T$(26,50)
City:	T$(51,65)
State:	T$(66,67)
Zip Code:	T$(68,72)
Blanks:	T$(73,100)

(Note: I find it useful to make my initial strings a little longer than necessary in order to allow for the later inclusion of additional fields.) In this example each record is 100 bytes long. Name, the field on which the index will be established, is contained in the substring T$(1,25).

→

Since the index field contains alphanumeric data and Atari BASIC does not support string arrays, we will have to set up a pseudo string array taking advantage of Atari BASIC's ability to support very long strings. To do this we first create a temporary string variable (REF$) to hold a single index reference. REF$ must include 25 bytes for the name and sufficient bytes for the values of the sector and byte address. The sector value is always a number between 4 and 707 which can be converted into two hexadecimal digits. The byte value is between 0 and 127 in single density (or 0 and 255 in double density) which can be converted into one hexadecimal digit. Thus we must allow three bytes for the address of each record and so dimension REF$ to 28. INDEX$ will hold the entire index and should be dimensioned to LEN(REF$) (i.e. 28) times the number of records in the database (i.e. 600). The following program will create the index using the CHR$ function to convert the sector and byte values into atasci characters which can then be inserted into REF$:

```
10 DIM INDEX$(16800),T$(100),REF$(28)
30 INDEX$="":REF$=""
40 OPEN #1,4,0,"D:MYFILE.DTA":TRAP 120 :REM
 substitute the name of your data file
50 NOTE #1,SECTOR,BYTE
60 INPUT #1;T$
70 REF$(1,25)=T$(1,25)
80 H=INT(SECTOR/256):REF$(26,26)=CHR$(H)
85 REF$(27,27)=CHR$(SECTOR-H*256)
90 REF$(28,28)=CHR$(BYTE)
100 GOTO 50
120 CLOSE #1:NUM=LEN(INDEX$)/28
```

The following program lines will search the index for an individual record:

```
12 DIM R$(25)
200 ? "NAME TO BE SEARCHED": INPUT R$
210 FOR P= 1 TO NUM
220 REF$=INDEX$(P*28-27,P*28)
230 IF REF$(1,25)=R$ THEN POP:GOTO 260
240 NEXT P
250 ?"NO RECORD FOUND": FOR I=1 TO 250:NEXT
 I: GOTO 200
260 B$=REF$(26,26):SECTOR=ASC(B$)*256
263 B$=REF$(27,27):SECTOR=SECTOR+ASC(B$)
265 B$=REF$(28,28): BYTE=ASC(B$)
270 OPEN #1,12,0,"D:MYFILE.DTA"
280 POINT #1,SECTOR,BYTE
290 INPUT #1;T$
```

The record can now be read, changed, etc. and then rewritten to disk with the following lines:

```
400 POINT #1,SECTOR,BYTE
410 PRINT #1;T$
420 CLOSE #1
```

In order to sort the records by name just sort the index. The sorted records can then be read by the following program lines:

```
500 OPEN #1,4,0,"D:MYFILE.DTA"
510 FOR P=1 TO LEN(INDEX$) STEP 28: REF$=IN
DEX$(P,P+27)
520 B$=REF$(26,26):SECTOR=ASC(B$)*256
525 B$=REF$(27,27):SECTOR=SECTOR+ASC(B$)
528 B$=REF$(28,28):BYTE=ASC(B$)
530 POINT #1,SECTOR,BYTE
540 INPUT #1:T$
550 REM do something with the record
560 NEXT P
570 CLOSE #1
```

Finally, if your database is on more than one disk drive, add another byte to REF$ to indicate which drive the record is on. The following lines show one way this might be accomplished:

```
10 DIM INDEX$(17400),T$(100),REF$(29),A$(1)
30 INDEX$="":REF$=""
35 IF N=2 THEN OPEN #1,4,0,"D2:MYFILE.DTA:
TRAP 120:GOTO 50
40 OPEN #1,4,0,"D:MYFILE.DTA":TRAP 120: REM
 substitute the name of your data file
50 NOTE #1,SECTOR,BYTE
60 INPUT #1;T$
70 REF$(1,25)=T$(1,25)
80 H=INT(SECTOR/256):REF$(26,26)=CHR$(H)
85 REF$(27,27)=CHR$(SECTOR-H*256)
90 REF$(28,28)=CHR$(BYTE)
95 REF$(29,29)="2":IF N=2 THEN REF$(29,29)=
"3"
100 GOTO 50
120 CLOSE #1:NUM=LEN(INDEX$)/29: IF N=2 THE
N go someplace
130 ? "Second address file on drive two";:I
NPUT A$
140 IF A$="Y" OR A$="y" Then N=2: GOTO 35
```

The drive number contained in REF$(29,29) can be converted back to a numeric value by using the VAL function which returns the numeric value of a string. The following lines illustrate how the search routine could be modified for searching multiple drives:

→

```
190 DIM R$(25)
200 ? "NAME TO BE SEARCHED": INPUT R$
210 FOR P= 1 TO NUM
220 REF$=INDEX$(P*29-28,P*29)
230 IF REF$(1,25)=R$ THEN POP:GOTO 260
240 NEXT P
250 ?"NO RECORD FOUND": FOR I=1 TO 250: NEX
T I: GOTO 200
260 B$=REF$(26,26):SECTOR=ASC(B$)*256
263 B$=REF$(27,27):SECTOR=SECTOR+ASC(B$)
265 B$=REF$(28,28): BYTE=ASC(B$)
268 G=VAL(REF$(29,29):IF G=3 THEN OPEN #G,1
2,0,"D2:MYFILE.DTA": GOTO 280
270 OPEN #G,12,0,"D:MYFILE.DTA"
280 POINT #G, SECTOR,BYTE
290 INPUT #G;T$
300 REM do something with the record
400 POINT #G,SECTOR,BYTE
410 PRINT #G;T$
420 CLOSE #G
```

Similar instructions can be added to the routine to read all the records.

If the index were based on a numeric data field, either a numeric array or a pseudo string array could be used. The latter may prove to be more memory efficient, however. Each element in a numeric array costs 8 bytes whereas each character in a string costs only one byte. Thus the sector and byte values for one record would cost 16 bytes if stored in a numeric array but only 3 bytes if stored in a pseudo string array. For an index based on social security number, for example, a pseudo string array would require 12 bytes per record (9+2+1) whereas a numeric array would require 24 (8+8+8) bytes per record.

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CURRENT NOTES

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BECAUSE I HAVE NOTHING TO PUT HERE!

XF551 AND ADOS

Here's some additional details about the new Atari 8-bit disk drive and other Atari hardware.

Essentially, the XF551 is an adaptation of the standard disk drive mechanism being used for Atari's IBM clone. The 360K, double-sided, double-density 5 1/4 inch disk drive runs 2.9 times faster than the Atari 1050 and is due in the stores this summer at a $199.95 list-price.

The XF551 can automatically adapt itself to today's single density and enhanced density DOS disks. However, ADOS, the new OSS operating system coming with the XF551 includes a tree structure allowing subdirectories, easy switching between menus or keyboard commands, and a high degree of file recovery safety.

Bill Wilkinson of OSS says that ADOS will run on any Atari-compatible disk drive, from the old 810 to a 16Mb hard disk. Although 8Mb is the upper limit for efficient operation, a larger hard disk can be partitioned into several logical drives. DOS 2 and 2.5 files can be read into ADOS, but ADOS is not fully compatible with the older operating systems.

LORDS OF CONQUEST

A GAME FROM HELL???

by Al Tressel

Lords of Conquest is a recent release from Electronic Arts for the 8-bit Atari computers that is anoher example of EA's attitude toward the Atari community. Their recent releases do not even come close to some of their previous classic programs such as M.U.L.E. and Archon. With programs such as Lords of Conquest and Touchdown Football, they may as well not turn out anything at all for the 8-bits and stick with Amiga, the computer that puts you on the competitive edge. (Ha Ha!)

The program sounded good to me upon reading the packaging, and the basic premise is a good one, however, after EA got hold of it, Lords of Conquest falls short of its potential. The graphics reminded me of early 2600 games that were programmed in 2K of memory. Not only that, more than one time during play, the program locks up on you after plodding through a half hour or so of game play. One time, the computer player kept trying to give a command to my forces rather than its own, so the game became an endless loop that could only be remedied by turning off the computer.

I know you are thinking to yourself that up to this point I haven't told you what the game is about. Let me just put it this way: "This is a game from Hell!" Don't bother putting out your hard-earned bucks on this one. And if someone gives you a copy, format it for use with Atariwriter so you can write a letter to EA and save the file for future reference.••

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